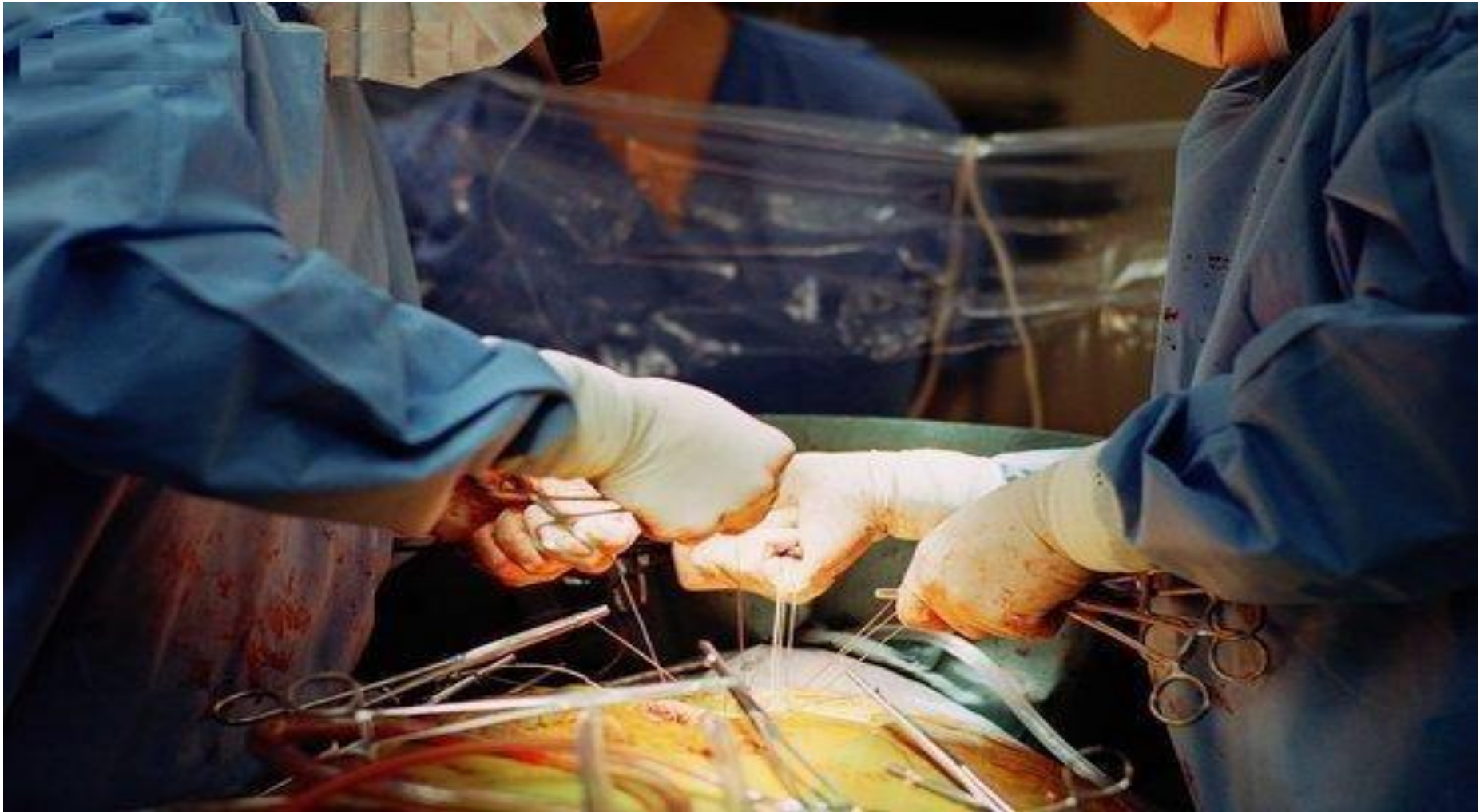


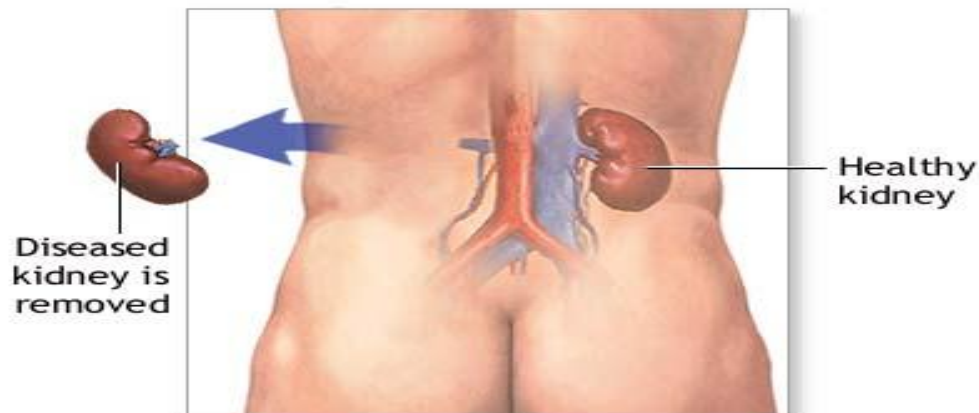
# One Life...Many gifts

## 5.2 Transplantation Information



# When were the first transplants done?

- Efforts at organ transplantation began in the 1950's
- People were dying from kidney failure, and the newly developed dialysis machines were not readily available nor efficient



# When were the first transplants done?

- Dialysis

A method of treating patients who have kidney failure to clean the blood and remove waste and excess water from the body.

There are two types of dialysis:

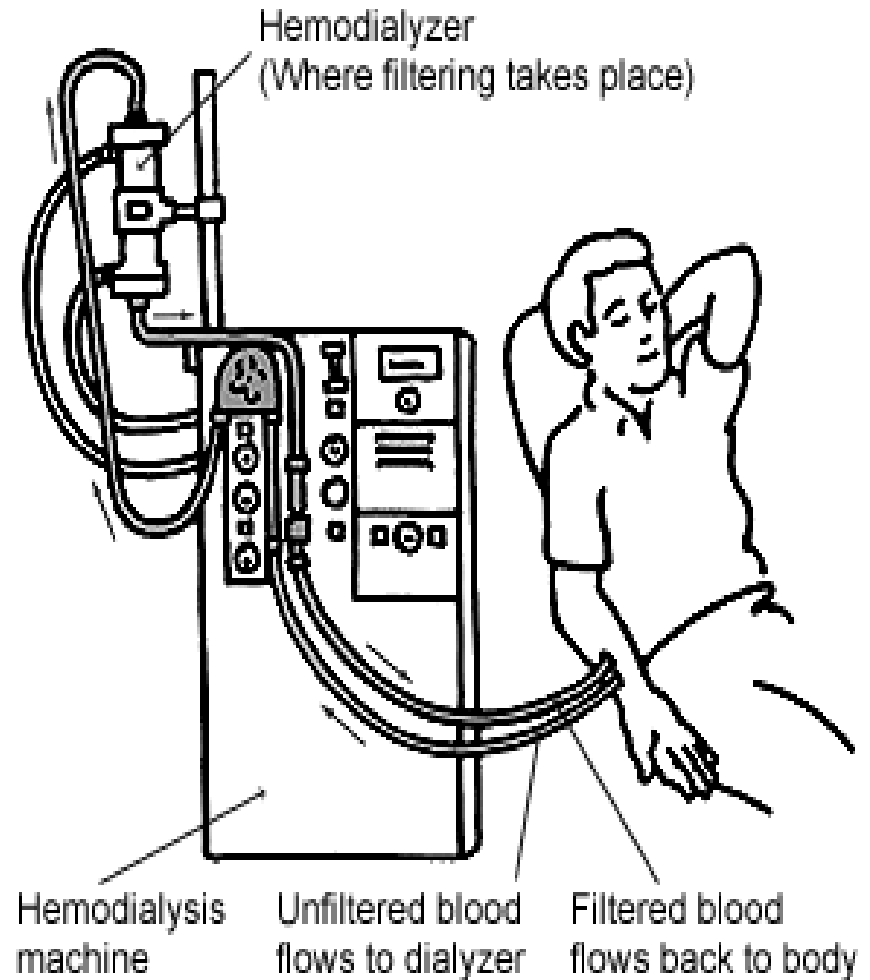
Hemodialysis

Peritoneal.

# When were the first transplants done?

## Hemodialysis

- Done at the hospital three times a week
- Patients blood is passed through an artificial kidney machine (removing waste products)

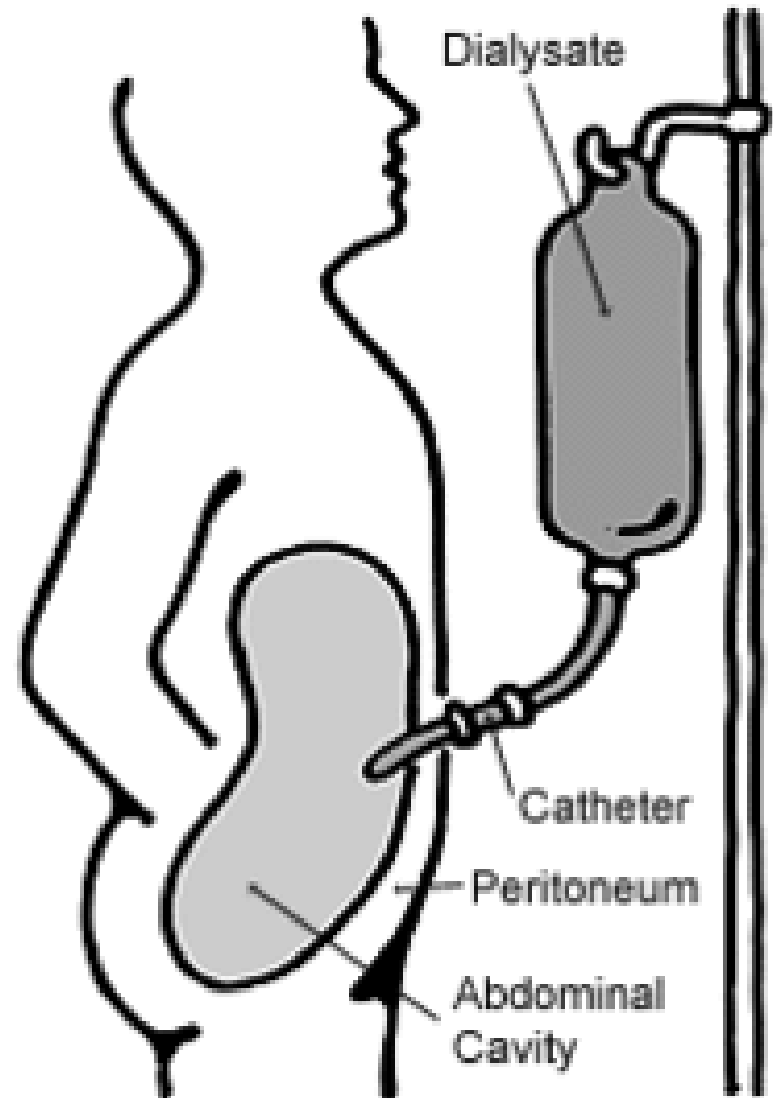


# Hemodialysis

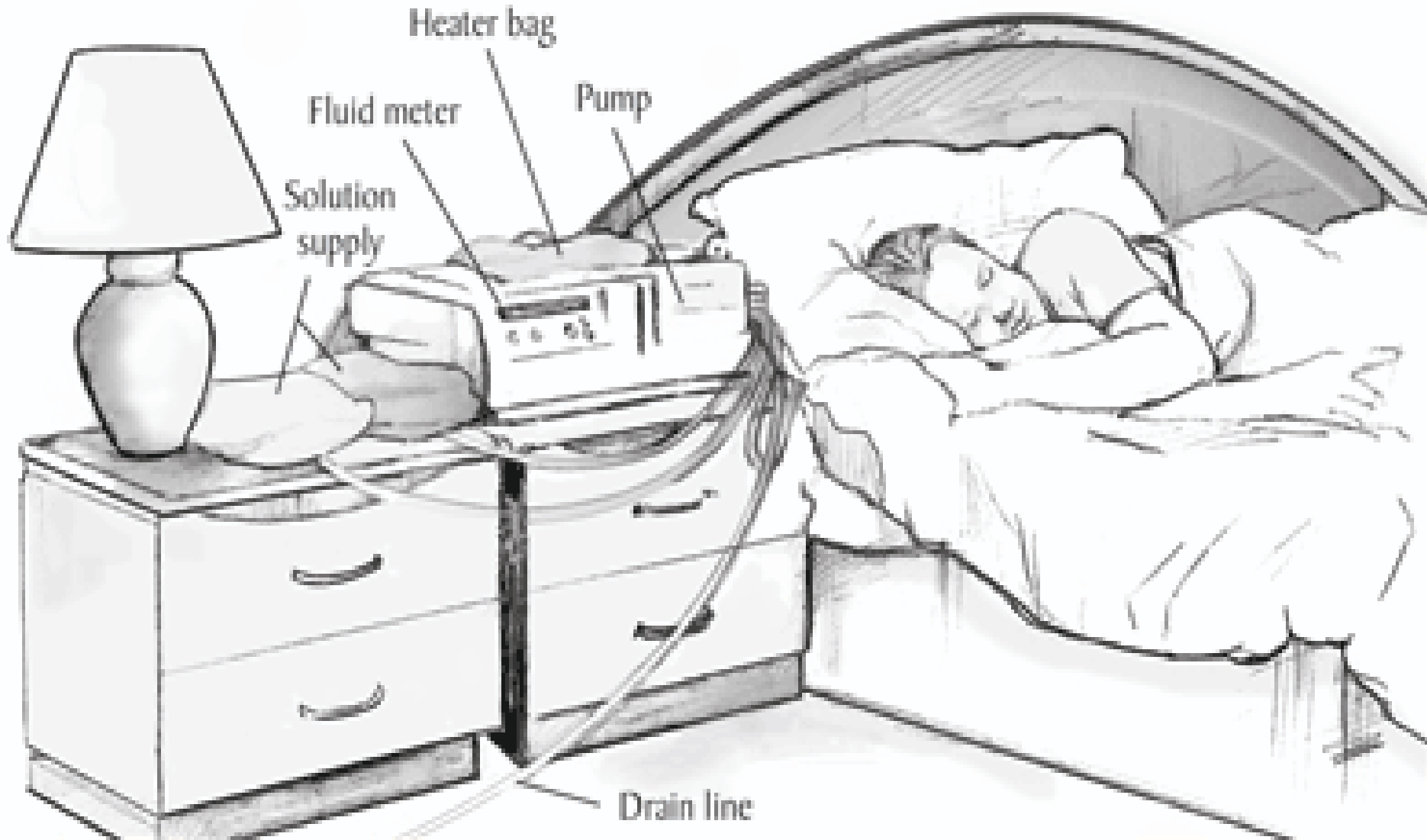


# Peritoneal Dialysis

- Fluid is exchanged in the abdominal cavity using a catheter.
- Usually done at home during the day or through the night

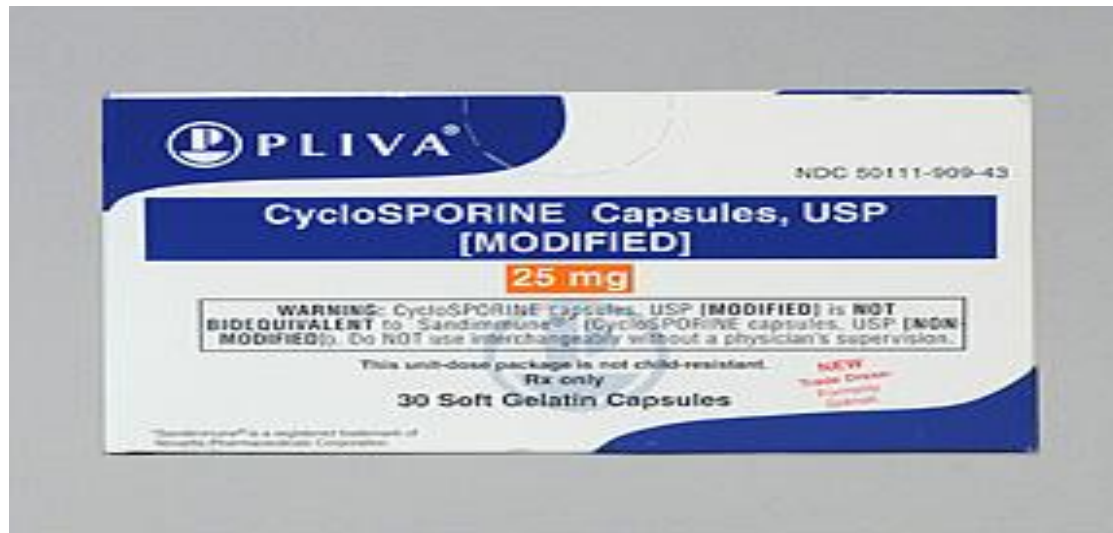


# Peritoneal Dialysis



# What changed to make transplants successful?

- Everything changed in the late 1970's when a new drug- cyclosporine- was discovered





# What is the biggest problem facing transplantation today?

- There has never been a worse time to be on the transplant waiting list
- More people are waiting than ever before, they are waiting for a longer time, and their chances of dying while waiting have never been so high

# What is the biggest problem facing transplantation today?

- Their needs are not being met because of a lack of donated organs
- More than 4,000 Canadians are waiting for an organ transplant, and thousands more need a tissue transplant
- 200 to 300 Canadians die each year because there are not enough donated organs

# What is the biggest problem facing transplantation today?

- Even if someone makes it on the list there is no guarantee that an organ will arrive in time
- Patients on kidney dialysis wait years at a time to get a transplant, if they get one at all
- Patients waiting for a new heart have a 1 in 4 chance of dying while waiting

# What is the biggest problem facing transplantation today?

- Some patients are also taken off the list because they are too ill to undergo the surgery.

# What are some solutions to the organ shortage?

- Living donors have become a source of organs in an attempt to address the need.



The great gift: Maff Potts, left, donated a kidney to his friend Andy Williamson (right). Now the two musicians have released a single, bottom right, to raise awareness of living kidney donation. **THE INDEPENDENT**

## Live life, not time, more

Andy Williamson faced years on dialysis. Then his friend and fellow band member made an offer he couldn't refuse: one of his own kidneys. **Rob Sharp reports**

If you had, perhaps, wandered down to London Bridge last week, you might have heard a peculiar and waiting organ and the sound of a saxophone. The Organ Grinders, an organ, slightly eccentric jazz funk outfit of two musicians, played a light, one-off set at The Clink, a tiny music venue turned museum. And if you had walked back, you would have seen the band burst into one of its own songs, "Live Life, Then Give Life", a bizarre title for a rock band, but with an important message to promote living kidney donation.

Earlier this year, the band's frontman, Andy Williamson, underwent a kidney transplant and the organ was donated by the band's keyboard player. The organ was a gift, a message of hope to transplant recipients. The organ was a gift, a message of hope to transplant recipients. The organ was a gift, a message of hope to transplant recipients.

Andy Williamson, 38, is a university friend of Maff Potts, 36, an organist and saxophonist. They met through their mutual love of music. They met through their mutual love of music. They met through their mutual love of music.

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"The bonus of being a donor is a dog's bollocks set of medical records - I'm now the most tested man in Britain"

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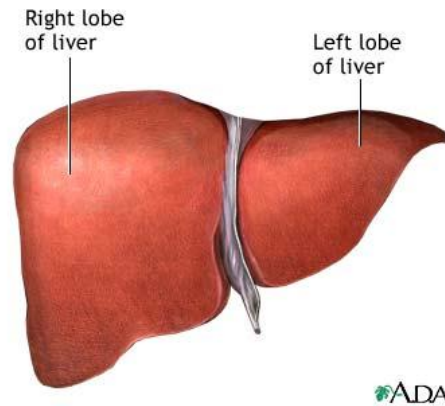
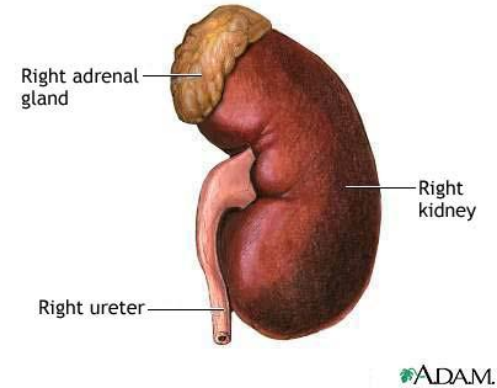
# What are some solutions to the organ shortage?

## Living Donor

A person who donates a

or a portion of the

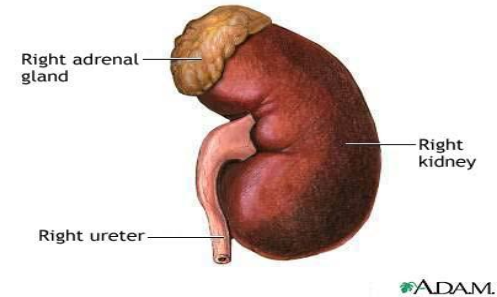
to someone in need,  
close friend



ADAM. active or a

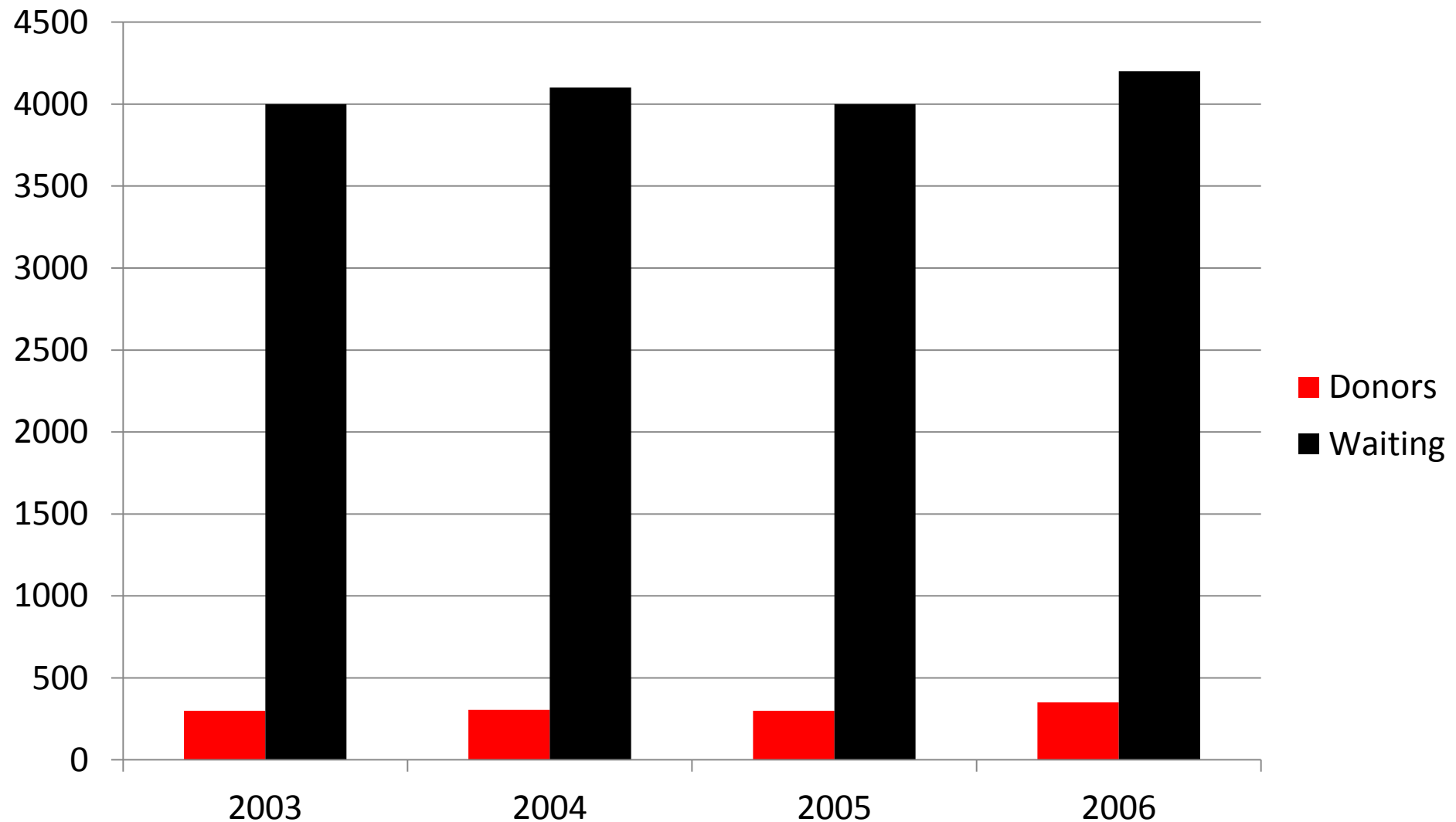
# What are some solutions to the organ shortage?

- Almost every one has two



and one can be donated because only one kidney is necessary to sustain life the life of an individual.

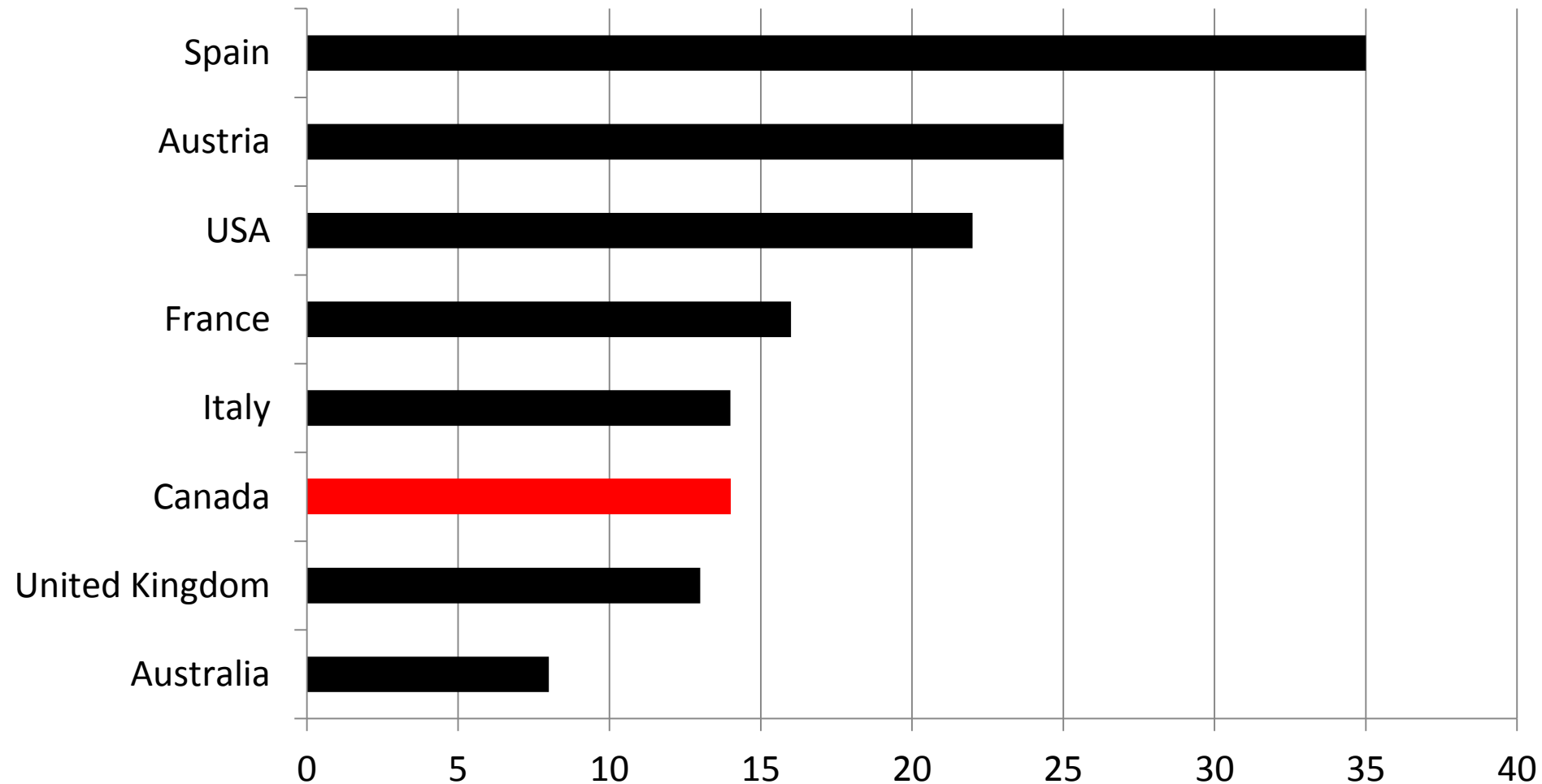
# Number of Donors & Patients Waiting For Transplants In Canada





# Number of Organ Donors Per Million Population

Number of People Per Million



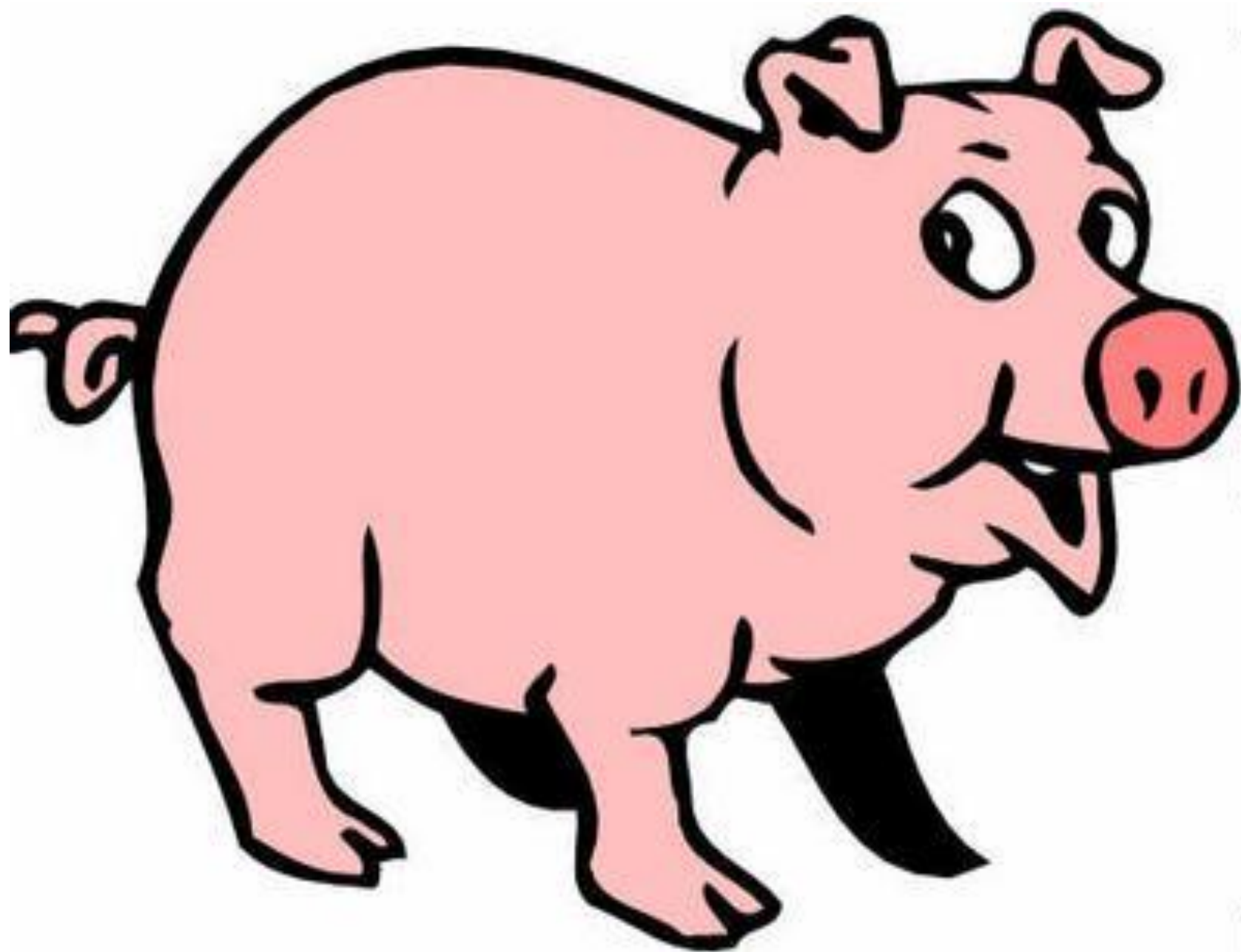
# What research can help solve the shortage?

- There has been a great deal of work on identifying and growing stem cells.
- How the stem cells are regulated and controlled in the body is not yet known



# What research can help solve the shortage?

- Researchers are looking at using **animal organs and tissue** as one way to help solve the organ shortage.
- Focusing on the use of \_\_\_\_\_ organs.



# What research can help solve the shortage?

- The major challenge is overcoming the immunological barrier when transplants are performed between widely divergent species.
- Researchers are also trying to create artificial organs. (VAD) Ventricular Assist Device